

HAUL-MASTER®

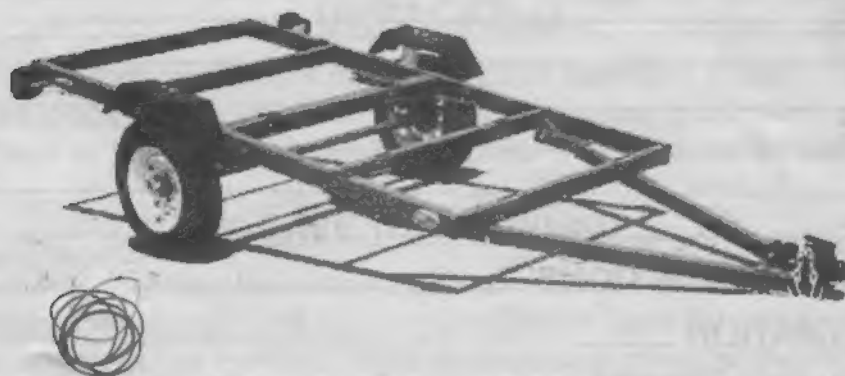


TRAILER

4' x 8'

Model 94564

## ASSEMBLY AND OPERATING INSTRUCTIONS



### WARNING!

#### IMPORTANT INFORMATION

This trailer's Hitch Coupler **MUST** be properly secured to the hitch ball of the towing vehicle. After assembly and attachment, pull up and down on the Hitch Coupler to make sure the hitch ball is fitting snugly in the Hitch Coupler. **There must be no play between the hitch ball and Hitch Coupler.** If there is play, tighten the Adjustment Nut until no play is present. If the Adjustment Nut is too tight, the Handle will not lock. **Carefully read and follow the complete instructions in this manual BEFORE setup or use.**

If the Coupler is not secured properly, the ball could come loose while the trailer is in motion, possibly causing property damage, **SERIOUS PERSONAL INJURY, or DEATH.**

Visit our website at: <http://www.harborfreight.com>



**Read this material before using this product.  
Failure to do so can result in serious injury.  
SAVE THIS MANUAL.**

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**For technical questions or replacement parts, please call 1-800-444-3353.**

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## SPECIFICATIONS

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Maximum Payload Capacity	1,720 Pounds
Bed Dimensions	4 Feet Wide x 8 Feet Deep
Required Hitch Ball Size (not included)	2"
Wheel Rim Diameter & Width	12" Diameter x 4" Wide
Tire Size & Type	5.30 - 12 / 6 P.R. / Load Range Rating C
Wheel Lug Nut Quantity & Torque Requirement	5 Per Rim 85 to 90 Ft./Lbs.
Required Tire Air Pressure	80 PSI Per Tire Maximum (Cold)
Stop & Tail Light Type	#1157 VDC (Clear)
Side Running Light Type	#1895 VDC (Amber)
Ground Clearance	15-1/4" @ "Tongue / 17-1/2" @ Rear / 9-3/4" @ Axle
Overall Dimensions	139-1/4" Long x 62-1/4" Wide @ Fenders 25-1/2" High @ Top of Fenders 20-1/2" @ Deck Surface
Ship Weight / Net Weight	272 lbs. / 260 lbs.

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## UNPACKING

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When unpacking, make sure all the parts and hardware shown on the **Parts List/ Hardware List (page 19)** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

### SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

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## GENERAL SAFETY RULES

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### IMPORTANT SAFETY INSTRUCTIONS



Read and adhere to the following instructions. Failure to read and obey all of the following instructions **COMPLETELY** will void the warranty and can result in damage to the Trailer, property damage, or **SERIOUS PERSONAL INJURY**.

**SAVE THESE INSTRUCTIONS.**

### Work Area

1. Keep work area clean and dry. Cluttered, damp, or wet work areas invite injuries.
2. Keep children away from work area. Do not allow children to play in, climb on or ride in this product.

3. Store idle equipment. When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
4. Do not use this product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.
5. Use eye protection. Wear ANSI-approved safety impact eye goggles when assembling this product. ANSI-approved safety impact eye goggles are available from Harbor Freight Tools.
6. Dress safely. Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.
7. Do not overreach. Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
8. Industrial applications must follow OSHA requirements.
9. Stay alert. Watch what you are doing at all times. Use common sense. Do not use this product when you are tired or distracted from the job at hand.

### **Equipment Use and Care**

1. Check for damaged parts. Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.
2. Replacement parts and accessories: When servicing, use only identical replacement parts. Only use accessories intended for use with this product. Approved accessories are available from Harbor Freight Tools.
3. Maintain this product with care. Keep this product clean and dry for better and safer performance.
4. Maintenance: For your safety, service and maintenance should be performed regularly by a qualified technician.
5. Use the right equipment for the job. Do not attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this product was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.



## Service


1. Equipment service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. When servicing equipment, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, and Cleaning" section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of personal injury.

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## **SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS**

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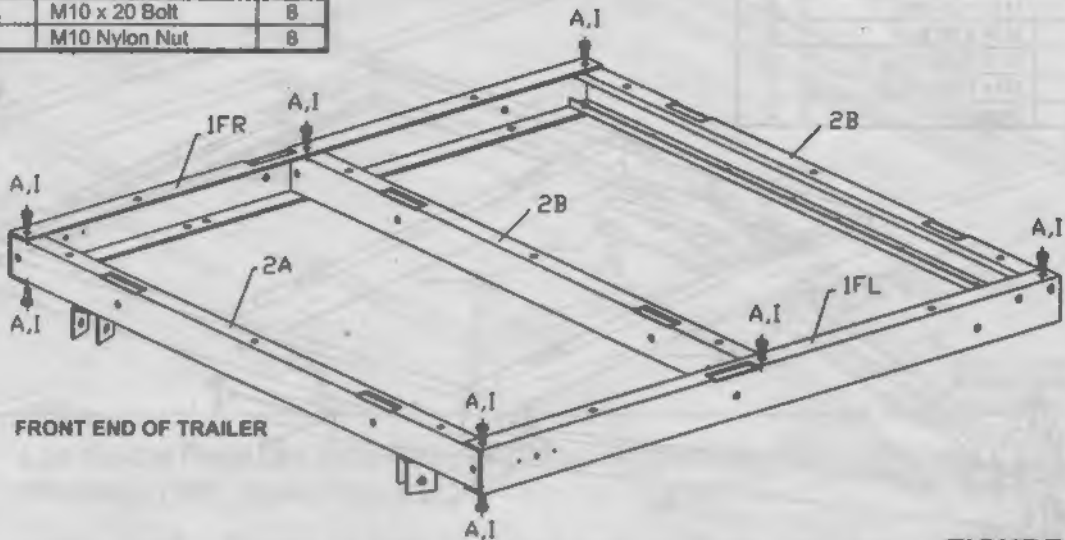
1. To avoid personal injury and/or property damage, do not exceed the Trailer's maximum payload capacity of 1,720 pounds (evenly distributed).
2. **WARNING! The wheel bearings must be packed with bearing grease prior to assembly and use of this trailer. See page 11 and 12 of this instruction manual for proper packing of bearing grease instructions.**
3. Before each use, always examine the Trailer for proper Tire air pressure (maximum pressure is 80 PSI cold), damaged tail lights, damaged side running lights, loose bolts and nuts, structural cracks and bends, and any other condition that may affect its safe operation. Do not use the Trailer even if minor damage appears.
4. Never allow adults, children, or pets to ride in or play on the Trailer.
5. Before each use, always attach the Safety Chain of the Trailer to the towing vehicle. Make sure the Safety Chain is attached to the towing vehicle with the same length for each side. Do not allow the Safety Chain to drag on the ground.
6. Always check to make sure the payload being transported is properly and safely secured in the Trailer. Load the Trailer evenly from side to side with 60% of the load forward of the Axle.
7. Prior to using the Trailer, make sure to read and understand all instructions and safety precautions as outlined in the owner's manual for the towing vehicle. Make sure the towing vehicle is capable of towing the Trailer and its payload. Make sure the hitch on the towing vehicle is capable of towing the Trailer and its payload. The towing capacity of the hitch is typically stamped on the hitch drawbar.
8. Make sure the Coupler and the vehicle's ball hitch (not included) are of equal mating size (2") and are rated equal to or greater than the weight of the Trailer and its payload.
9. Do not exceed 45 miles per hour when towing the Trailer. Excess speed is a major cause of vehicle-trailer accidents.
10. The Tail Light Bulbs supplied with this Trailer are for a 12 volt DC electrical system only. Do not attempt to power the Light Bulbs with any other type or voltage electrical current.

11. Whenever possible, park the Trailer on a flat, level, paved, surface and chock both Tires to keep the Trailer from accidentally moving.
12.  **CAUTION!** Care must be taken when backing up the Trailer. Only back up the Trailer on a straight path. If the Trailer is allowed to turn off the straight path while backing up, the Trailer could jackknife, causing severe damage to the Trailer and towing vehicle.
13. Maintain labels and nameplates on the Trailer. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
14. Reporting safety defects: If you believe your Trailer has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the manufacturer, Changzhou Nanxiashu Tool Company. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA can not become involved in individual problems between you, Harbor Freight Tools, or the manufacturer. To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 or 202-366-0123 or write NHTSA, U.S. Department, 400 7th Street SW, NSA-11, Washington, D.C. 20590.
15. Trailer licensing notice: Some states may consider this Trailer a vehicle requiring registration, licensing, and titling. Check with your State Department of Motor Vehicles for information and guidance on registering, licensing, and titling the Trailer.
16. **WARNING:** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.
17. This Trailer must be securely connected to the towing vehicle before loading.

# ASSEMBLY INSTRUCTIONS

## Phase 1:

Parts Needed		
Part #	Description	Qty.
1FL	Front Left Side Rail	1
1FR	Front Right Side Rail	1
2A	Cross Member	1
2B	Cross Member	2
A	M10 x 20 Bolt	8
I	M10 Nylon Nut	8

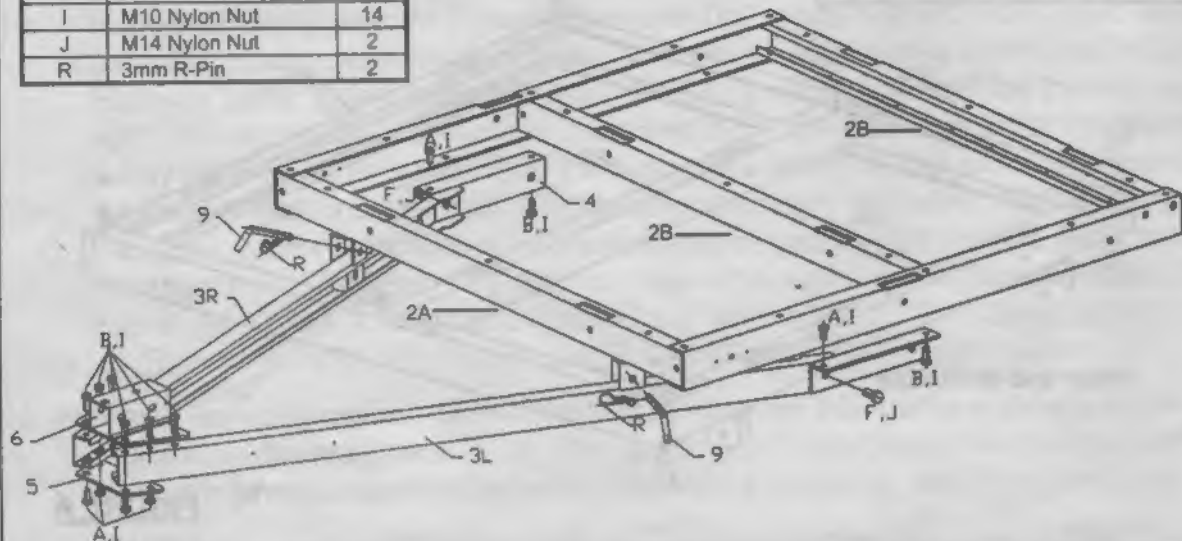


**FIGURE A**

Lay out the Front Left Side Rail (1FL), Front Right Side Rail (1FR), one Cross Member (2A), and two Cross Members (2B). Assemble these parts, using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure A.)

## Phase 2:

Parts Needed		
Part #	Description	Qty.
3L	Left Connecting Rail	1
3R	Right Connecting Rail	1
4	Angle Iron	2
5	T-Plate	1
6	Coupler Base	1
9	L-Latch	2
A	M10 x 20 Bolt	8
B	M10 x 25 Bolt	6
F	M14 x 30 Bolt	2
I	M10 Nylon Nut	14
J	M14 Nylon Nut	2
R	3mm R-Pin	2

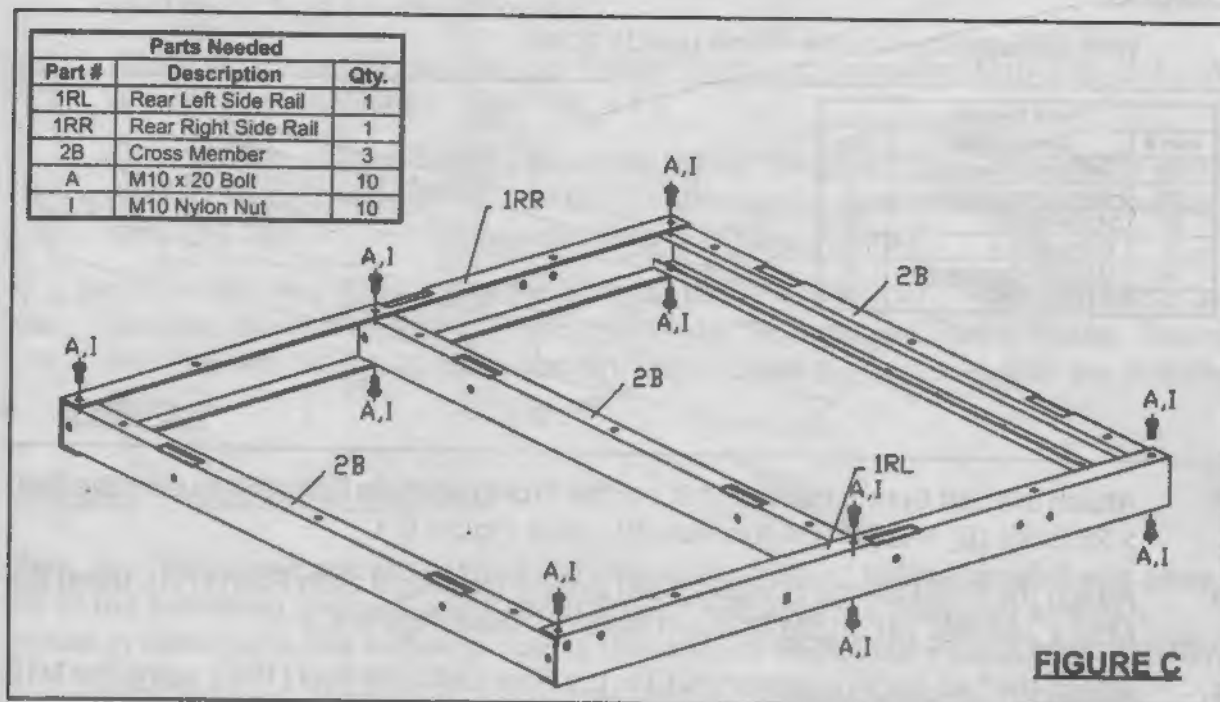


**FIGURE B**

1. Attach an Angle Iron (4) to the Front Left and Front Right Side Rails (1FL, 1FR) and Cross Member (2B), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure B.)
2. Attach the Left and Right Connecting Rails (3L, 3R) to the Cross Member (2B), using the L-Latch (9) and 3mm R-Pin (R). Then attach the Left and Right Connecting Rails to the Angle Irons (4), using the M14 x 30 Bolts (F) and M14 Nylon Nuts (J). (See Figure B.)
3. Attach the Coupler Base (6) to the Left and Right Connecting Rails (3L, 3R), using the M10 x 25 Bolts (B) and M10 Nylon Nuts (I). Then attach the T-Plate (5) under the Left and Right Connecting Rails, using the M10 x 25 Bolts (B) and M10 Nylon Nuts (I). (See Figure B.)

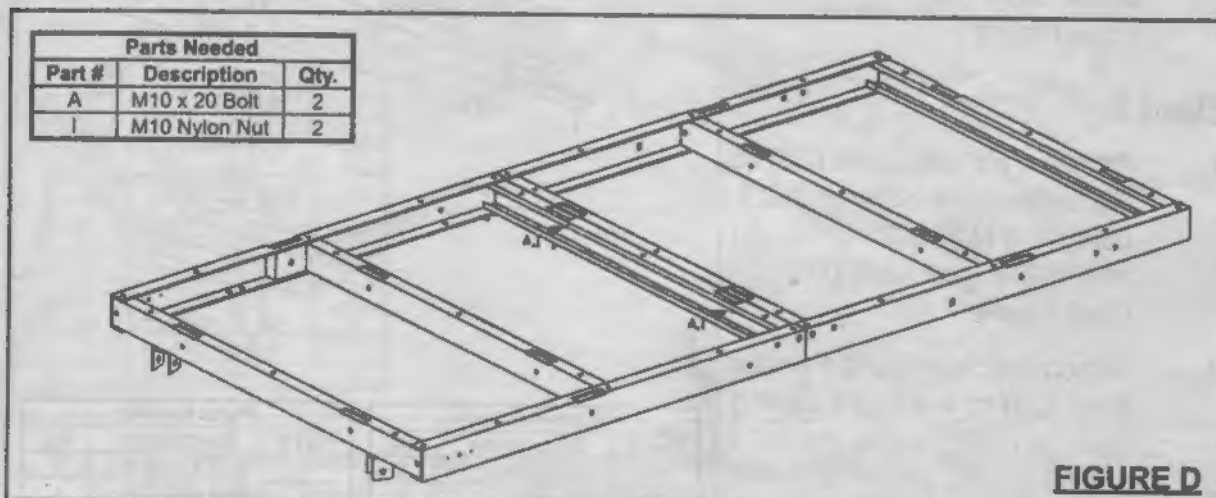


### Phase 3:



1. Lay out the Rear Left Side Rail (1RL), Rear Right Side Rail (1RR), and three Cross Members (2B). (See Figure C.)
2. Assemble the Rear Left Side Rail (1RL), Rear Right Side Rail (1RR), and three Cross Members (2B), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure C.)

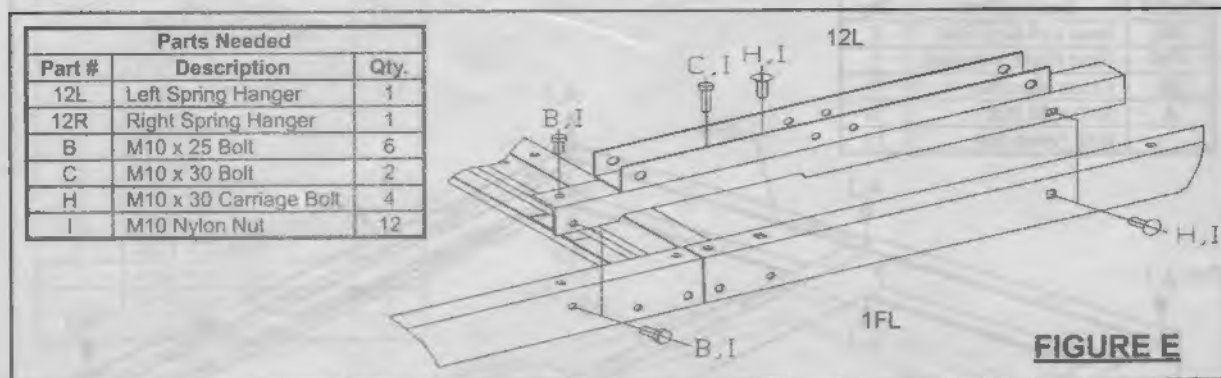
### Phase 4:



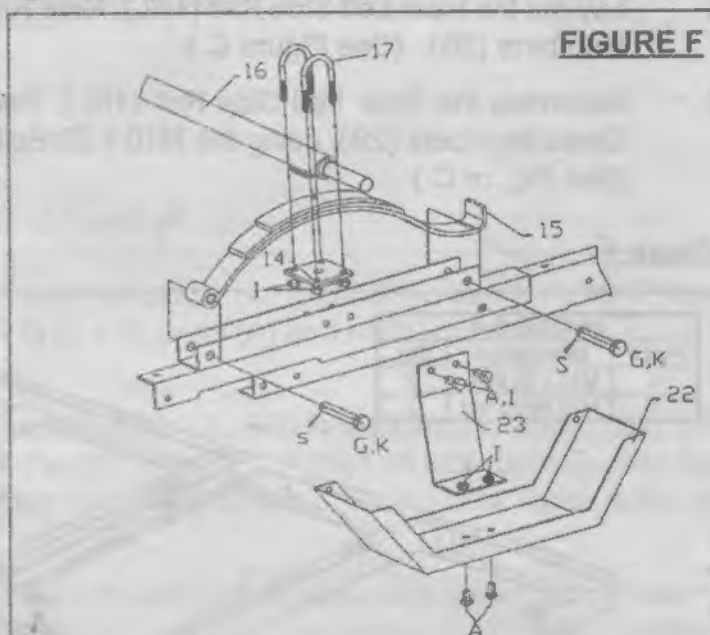
Assemble the front portion and rear portion, using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure D.)

## Phase 5:

1. With assistance, turn the frame upside down.



2. Attach the Left Spring Hanger (12L) to the Front Left Side Rail (1FL), using the M10 x 25 Bolts (B) and M10 Nylon Nuts (I). (See Figure E.)
3. Attach the Right Spring Hanger (12R) to the Front Right Side Rail (1FR), using the M10 x 25 Bolts (B) and M10 Nylon Nuts (I). (See Figure E.)
4. Attach the Left Spring Hanger (12L) to the Rear Left Side Rail (1RL), using the M10 x 30 Bolts (C), M10 x 30 Carriage Bolts (H), and M10 Nylon Nuts (I). (See Figure E.)
5. Attach the Right Spring Hanger (12R) to the Rear Right Side Rail (1RR), using the M10 x 30 Bolts (C), M10 x 30 Carriage Bolts (H), and M10 Nylon Nuts (I). (See Figure E.)



## Phase 6:

1. Attach a Fender Seat (23) to the Left Spring Hanger (12L), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure F.)
2. Attach the remaining Fender Seat (23) to the Right Spring Hanger (12R), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure F.)

Parts Needed		
Part #	Description	Qty.
14	Spring Plate	2
15	Spring	2
16	Axle	1
17	U-Bolt	4
22	Fender	2
23	Fender Seat	2

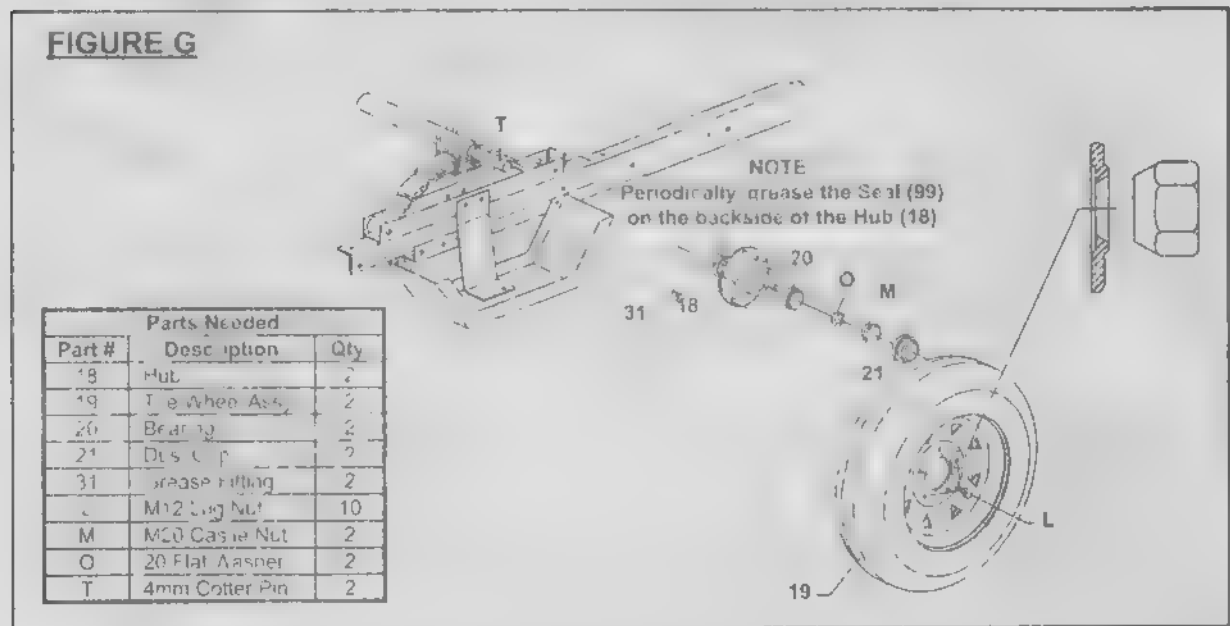
Parts Needed		
Part #	Description	Qty.
A	M10 x 20 Bolt	8
G	M14 x 80 Bolt	4
I	M10 Nylon Nut	16
K	M14 Hex Nut	4
S	3mm Cotter Pin	4

3. Attach a Fender (22) to the left Fender Seat (23), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure F.)
4. Attach a Fender (22) to the right Fender Seat (23), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure F.)
5. On each side, place a Spring (15) on the Spring Hangers (12L, 12R) with the spring eyes forward. Insert an M14 x 80 Bolt (G) through the Springs, and secure the Bolts with M14 Nuts (K) and 3mm Cotter Pins (S). (See Figure F.)
6. Place the Axle (16) on top of the Springs (15). Place a Spring Plate (14) under the Springs. Insert a U-Bolt (17) through the Axle, Springs, and Spring Plates. Secure the Axle with M10 x 20 Bolts and M10 Nylon Nuts (G) screwed onto the U-Bolts. (See Figure F.)

### **Phase 7: BEARING PACKING**

**Warning:** Read and adhere to the following instructions; failure to read and obey all of the following instructions **COMPLETELY** will void the warranty and can result in damage to the trailer, property damage, or **SERIOUS PERSONAL INJURY**.

1. **IMPORTANT:** Whenever a Hub (18) on a new Trailer requires assembly (or if a Hub is disassembled for maintenance) the following procedures **MUST** be followed:

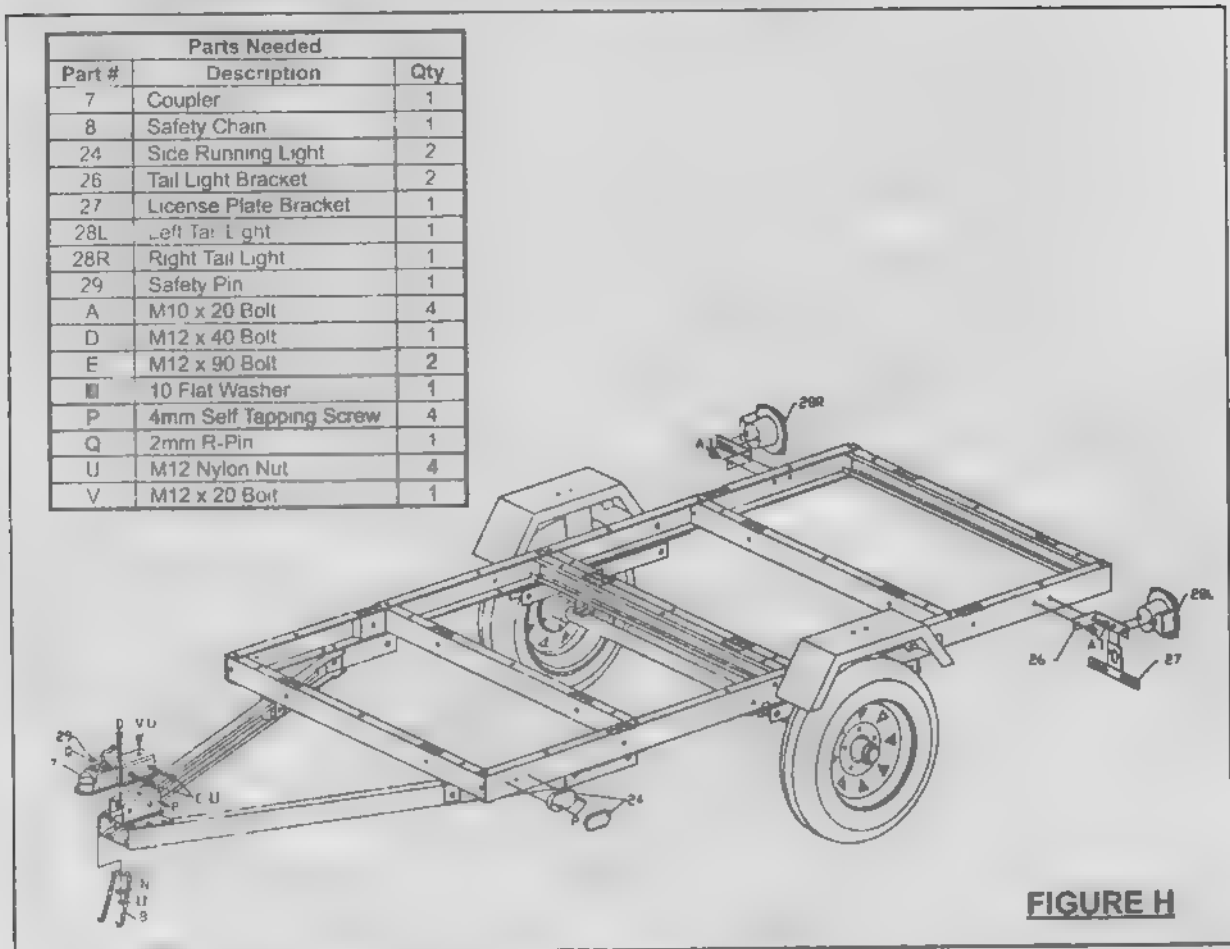


- a. Using a suitable solvent, thoroughly clean the Hub (18), Bearings (20), Castle Nut (M), Dust Cap (21), and the rest of the parts of the Hub Assembly of all grease, dirt, metal shavings, and all other foreign objects. **These parts must be cleaned, even if they are new or appear to be clean.** (See Figure G.)

- b. Allow all parts to dry completely.
  - c. Make sure your hands are clean and the bearing packer (not included) is clean.
  - d. Place fresh, clean bearing grease in the bearing packer.
  - e. With the grease-filled bearing packer in one hand and the Bearings (20) in the other, press the Bearing into the grease, forcing the grease inside the slots in grease, forcing the grease inside the slots in the Bearing. Continue doing this until every slot in the Bearing is completely full of grease.  
(See Figure G.)
  - f. Finish assembling the Hub Assembly as explained below, making sure not to get dirt or debris on any part of the assembly.
2. Carefully slide the Hubs (18) over the spindles at each end of the Axle (16).  
(See Figure G.)
  3. Insert the Bearings (20) and Flat Washers (O) on the spindles. Screw an M20 Castle Nut (M) tightly onto each spindle. Then back the Castle Nut off slightly so that the Hubs can just move freely (See Figure G.)
  4. Insert a 4mm Cotter Pin (T) through the M20 Castle Nut (M) and hole at the end of each spindle, and spread the Cotter Pins. (See Figure G.)
  5. Fill the Dust Caps (21) with bearing grease. Then, press each Dust Cap onto the Hubs (18). (See Figure G.)
  6. Grease each Grease Fitting (31) located on the backside of each Hub (18).  
(See Figure G.)
  7. Install a Tire/Wheel (19) assembly on each Hub Set (18). Then, secure the Tire/Wheel assemblies, using the M12 Lug Nuts (L). (See Figure G.)
- Note:** Use a lug wrench (not included) to tighten the M12 Lug Nuts (in a "star" pattern) to 85 to 90 ft-lb. (See Figure G.)

## Phase 8:

1. With assistance, turn the Trailer assembly right side up.



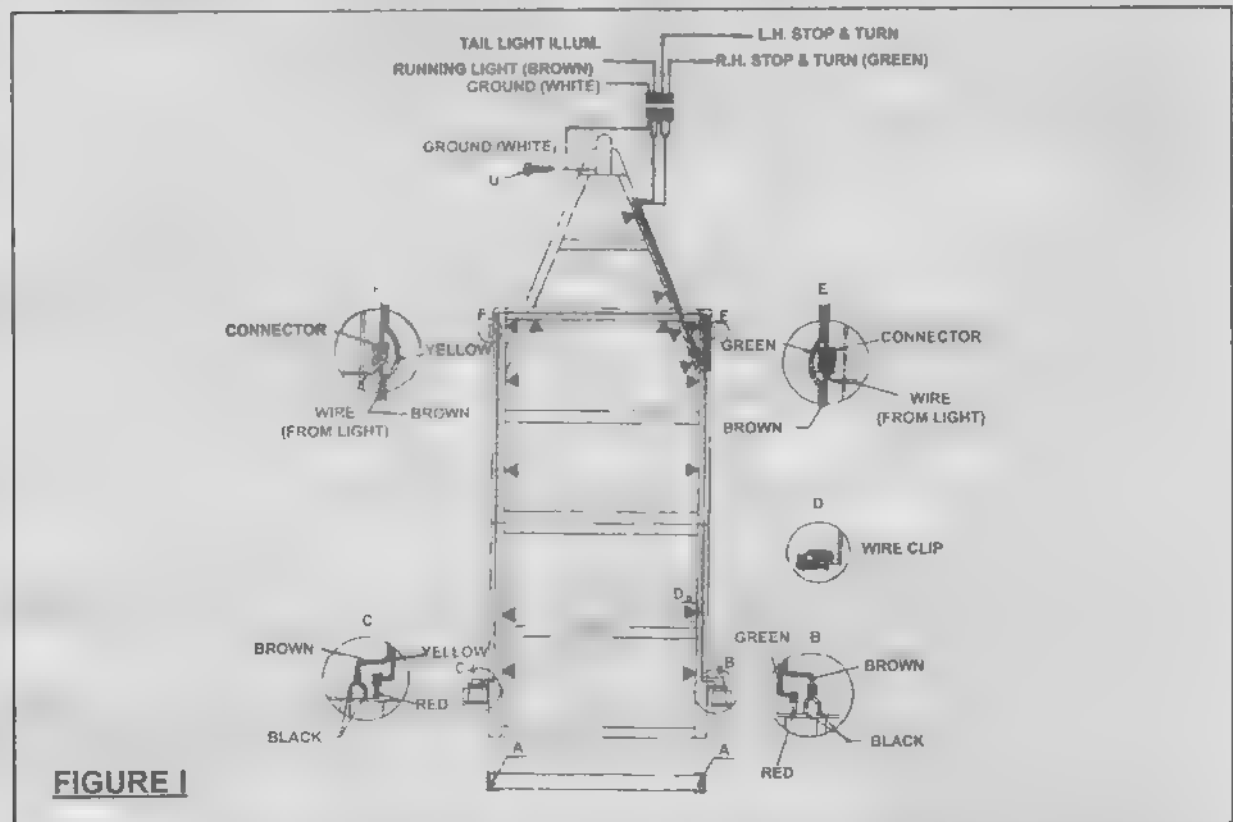
2. Attach the Coupler (7) to the Coupler Base (6), using the M12 x 90 Bolts (E) and M12 Nylon Nuts (U). Insert an M10 x 25 Bolt (B) downward through the rear hole of the Coupler and Coupler Base and screw on an M10 Nylon Nut (I). (See Figure H.)
3. Lock the Coupler (7) Trigger, using a Safety Pin (29) and 2mm R-Pin (Q). (See Figure H.)
4. Attach the Safety Chain (8) to the Coupler (7) with an M12 x 40 Bolt (D) inserted through the center link of the Safety Chain. Then secure the Safety Chain in place, using a Flat Washer (N) and M12 Nylon Nut (U). (See Figure H.)
5. Assemble the Tail Light Brackets (26) to the rear of the Rear Left Side Rail (1RL) and Rear Right Side Rail (1RR), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure H.)



6. Attach the License Plate Bracket (27) with the Left Tail Light (28L) to the Rear Left Side Rail (1RL), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I).  
NOTE: The Left Tail Light has a clear window at the bottom. (See Figure H.)
7. Attach the Right Tail Light (28R) to the rear of the Right Side Rail (1RR), using the M10 x 20 Bolts (A) and M10 Nylon Nuts (I). (See Figure H.)
8. Open the Lens of the Side Running Lights (24). Run the Wire Lead of a Side Running Light through the center hole located at the front end of the Front Left Side Rail (1FL). Then attach the Side Running Light to the Front Left Side Rail, using the 4mm Self Tapping Screws (P). (See Figure H.)
9. Run the Wire Lead of the remaining Side Running Light (24) through the center hole located at the front end of the Front Right Side Rail (1FR). Then attach the Side Running Light to the Front Right Side Rail, using the Self Tapping Screws (P). (See Figure H.)
10. Re-install the Lens on the two Side Running Lights (24). (See Figure H.)

### Phase 9:

1. Have a qualified service technician install a 4-wire, 12 volt DC Connector in the trunk area of your vehicle.



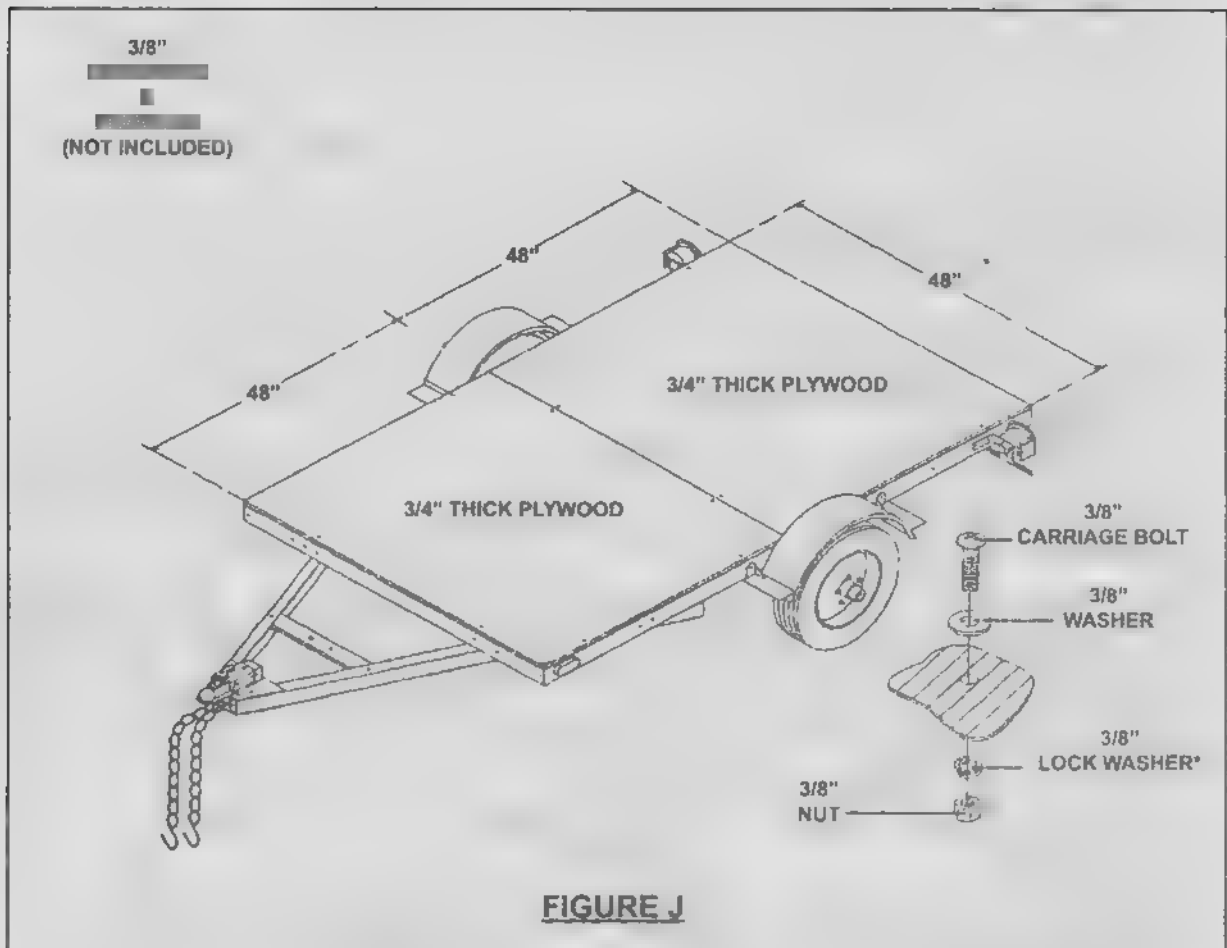
**FIGURE I**

2. Locate the vehicle's Connector Plug near the Trailer's Coupler (7) and lay out the Trailer's Wiring Harness wires. (See Figure I.)

3. Connect the Brown Wire to the vehicle's Left Tail Light by stripping, wrapping, and taping the Connector Plug. (See Figure I.)
4. Connect the Yellow Wire to the vehicle's Left Signal and Stop Light Wire. (See Figure I.)
5. Connect the Green Wire to the vehicle's Right Signal and Stop Light Wire. (See Figure I.)
6. NOTE: Some foreign vehicles may require an adaptor to convert their 5-wire system to a 4-wire vehicle Connector Plug. (See Figure I.)
7. Attach the White Ground Wire at the plug end of the Wiring Harness to the small hole on the Coupler Base (6) with a 1/4" Tapping Screw (not included). (See Figure I.)
8. Leave about 18" of wire beyond the Coupler (7). Then lay out the remaining wires along the Connecting Rails (3L, 3R) and Left and Right Side Rails (1FL, 1FR, 1RL, 1RR). (See Figure I.)
9. Secure the wires to the Connecting Rails (3L, 3R) and Left and Right Side Rails (1FL, 1FR, 1RL, 1RR), using the Clips provided. (See Figure I, Circle D.)
10. Connect the Wire Lead from the Side Running Light (24) on each side of the Trailer to the Brown Wire of the Wiring Harness, using a Wire Connector. (See Figure I, Circle E.)
11. Strip about 3/4" of the ends of the Yellow/Brown and Green/Brown wires. (See Figure I.)
12. Make the following connections (per color code, (See Figure I, Circle C.)

<u>Left Side</u>	<u>Right Side</u>
Yellow-Red Wire	Green-Red Wire
Brown-Two Black Wires	Brown-Two Black Wires

## Phase 10:



1. To install a Bed for the Trailer, cut two pieces of 3/4" thick plywood (not included) at 48" x 48". NOTE: It may be necessary to slightly trim the plywood to fit. (See Figure J.)
2. Mark 7 locations in each piece of plywood to correspond with the 14 mounting holes located on the front and rear Cross Members (2A, 2B) and Left and Right Side Rails (1FL, 1FR, 1RL, 1RR). Set the plywood aside, and drill the 14 marked locations with a 3/8" bit. Then, replace the plywood on the Trailer frame (See Figure J.)
3. Secure the two pieces of plywood to the front and rear Cross Members (2A, 2B) and Left and Right Side Rails (1FL, 1FR, 1RL, 1RR), using 3/8" diameter, rust resistant Carriage Bolts, Washers, Lock Washers, and Nuts (none included). Make sure the bolt heads do not protrude up through the plywood. (See Figure J.)

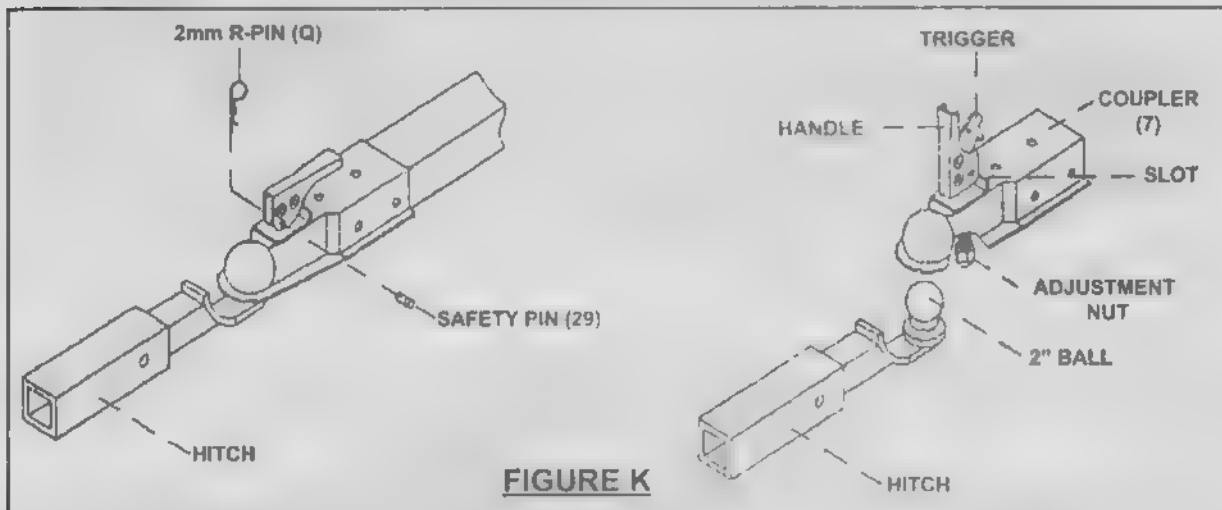
## OPERATING INSTRUCTIONS

### WARNING! IMPORTANT INFORMATION

This trailer's Hitch Coupler **MUST** be properly secured to the hitch ball of the towing vehicle. After assembly and attachment, pull up and down on the Hitch Coupler to make sure the hitch ball is fitting snugly in the Hitch Coupler. **There must be no play between the hitch ball and Hitch Coupler.** If there is play, tighten the Adjustment Nut until no play is present. If the Adjustment Nut is too tight, the Handle will not lock. **Carefully read and follow the complete Instructions in this manual BEFORE setup or use.**

**If the Coupler is not secured properly, the ball could come loose while the trailer is in motion, possibly causing property damage, SERIOUS PERSONAL INJURY, or DEATH.**

1. Only use a 2" Ball Hitch (not included) on the towing vehicle. (See Figure K.)
2. NOTE: To reduce friction between the 2" Ball Hitch and Trailer Coupler (7), apply a layer of heavy grease over the Ball Hitch (See Figure K.)



3. Temporarily remove the 2mm R-Pin (Q) and Safety Pin (29). Then, pull up on the Trigger and lift up on the Handle. (See Figure K.)

4. With assistance, place the Hitch Coupler (7) over the vehicle's Hitch Ball and push down on the Handle until the Trigger locks in the slot. Pull up and down on the Coupler to make sure the Hitch Ball is fitting snugly in the Coupler.  
There should be no play between the Hitch Ball and Coupler. If there is play, tighten the Adjustment Nut until no play is present. If the Adjustment Nut is too tight, the Handle will not lock. (See Figure K.)
5. Re-install the Safety Pin (29) and 2mm R-Pin (Q).
6. Make sure to attach each side of the Safety Chain (8) equally to the towing vehicle's rear bumper or frame. (See Figure K.)
7. Connect the Tail Light Wiring Assembly to the towing vehicle's 12 Volt DC wiring connector. **NOTE:** Make sure to consult the operator's manual of the towing vehicle for proper connection instructions.
8. **⚠ CAUTION!** Care must be taken when backing up the Trailer. Only back up the Trailer on a straight path. If the Trailer is allowed to turn off the straight path while backing up, the Trailer could jackknife, causing severe damage to the Trailer and to the towing vehicle.
9. When towing the Trailer over long distances stop and check the tightness of all connections, Side Running Lights (24), and Tail Lights (28L, 28R) at least every 100 miles.
10. Carry emergency flares, and fire extinguisher, if required for operation in your state. Carry extra bulbs and fuses if towing the Trailer at night over long distances




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## TIRE INFORMATION

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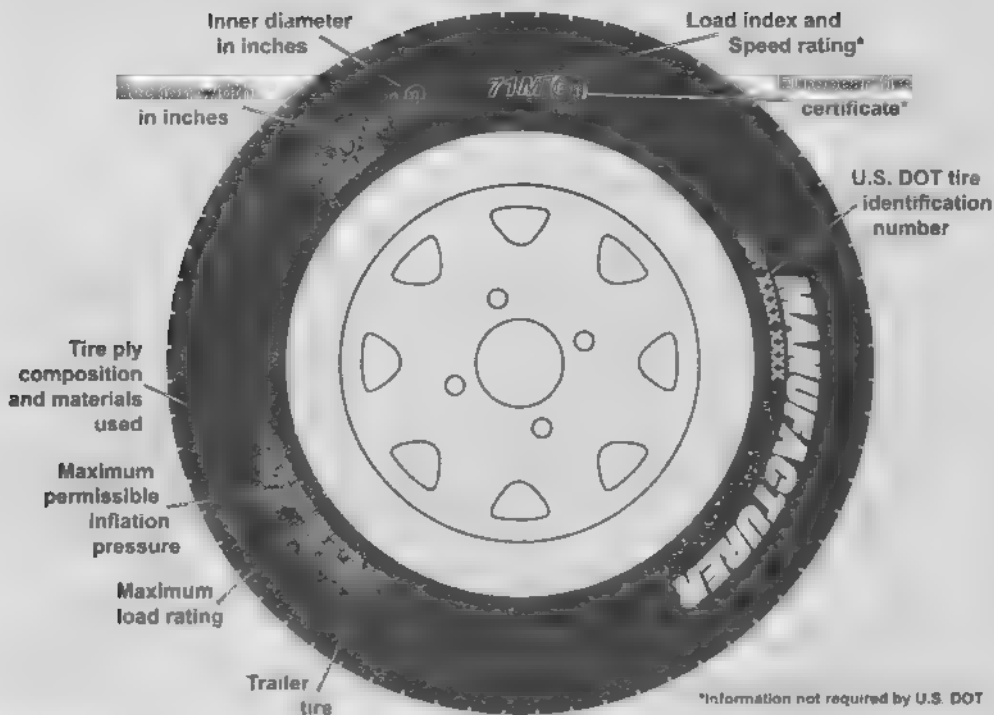
### Tire Terminology Glossary

- **Accessory weight means-** the combined weight of automatic transmission, power steering, power brakes, power windows, power seats, radio, and heater, to the extent that these items are available as factory-installed equipment.
- **Carcass means-** the tire structure except for the tread which provides the major portion of the tire's capability to deflect in response to the vertical loads and tractive forces that the tire transmits from the roadway to the non-pneumatic rim, the wheel center member, or the vehicle and which attaches to the vehicle or attaches, either integrally or separably, to the wheel center member or non-pneumatic rim.
- **Carcass separation means-** the pulling away of the carcass from the non-pneumatic rim or wheel center member.
- **Chunking means-** the breaking away of pieces of the carcass or tread.
- **Cracking means-** any parting within the carcass, tread, or any components that connect the tire to the wheel center member.



- **Curb weight means-** the weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.
- **Load rating means-** the maximum load a tire is rated to carry.
- **Maximum loaded vehicle weight means-** the sum of
  - a. Curb weight;
  - b. Accessory weight,
  - c. Vehicle capacity weight; and
  - d. Production options weight.
- **Maximum tire width means-** the greater of either the linear distance between the exterior edges of the carcass or the linear distance between the exterior edges of the tread, both being measured parallel to the rolling axis of the tire.
- **Normal occupant weight means-** 68 kilograms times the number of occupants.
- **Occupant distribution means-** distribution of occupants in a vehicle.
- **Production options weight means-** the combined weight of those installed regular production options weighing over 2.3 kilograms in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.
- **Tread means-** that portion of the tire that comes in contact with the road
- **Tread separation means-** pulling away of the tread from the carcass.
- **Vehicle capacity weight means-** the rated cargo and luggage load plus 68 kilograms times the vehicle's designated seating capacity.
- **Vehicle maximum load on the tire means-** that load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.
- **Vehicle normal load on the tire means-** that load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and dividing by 2.

## Tire Markings



- **Section width**- This number gives the width of the tire in inches. The larger the number, the wider the tire. (The markings on the example tire diagram show 480. The markings on your tire may differ.)
- **Inner diameter**- This number gives the inner diameter of the tire in inches. This is also the rim diameter in inches. (The markings on the example tire diagram show 12. The markings on your tire may differ.)
- **U.S. DOT tire identification number**- This begins with the letters "DOT" and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year that the tire was built. For example, the numbers 2107 mean the 21st week of 2007. Any other numbers used are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.
- **Maximum Load Rating**- This number indicates the maximum load in kilograms and pounds that can be carried by the tire.

### Load Index Rating Codes

Code	Pounds	Code	Pounds	Code	Pounds	Code	Pounds	Code	Pounds
71	761	79	903	87	1,201	95	1,521	103	1,929
72	783	80	992	88	1,235	96	1,565	104	1,984
73	805	81	1,019	89	1,279	97	1,609	105	2,039
74	827	82	1,047	90	1,323	98	1,653	106	2,094
75	853	83	1,074	91	1,356	99	1,709	107	2,149
76	882	84	1,102	92	1,389	100	1,764	108	2,205
77	908	85	1,135	93	1,433	101	1,819	109	2,271
78	937	86	1,168	94	1,477	102	1,874	110	2,337

- **Load index**- This is a measurement of how much weight each tire can support. See chart above. (The markings on the example tire diagram show 71. The markings on your tire may differ.) Note: You may not find this information on all tires because it is not required by law.

- **Speed Rating-** The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. *This does not indicate that the vehicle or rims can safely reach or maintain that speed.* These ratings are listed to the right. (The markings on the example tire diagram show M. The markings on your tire may differ.) Note: You may not find this information on all tires because it is not required by law.
- **Tire Ply Composition and Materials Used-** The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.
- **Maximum Permissible Inflation Pressure-** This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

### Tire Speed Rating Codes

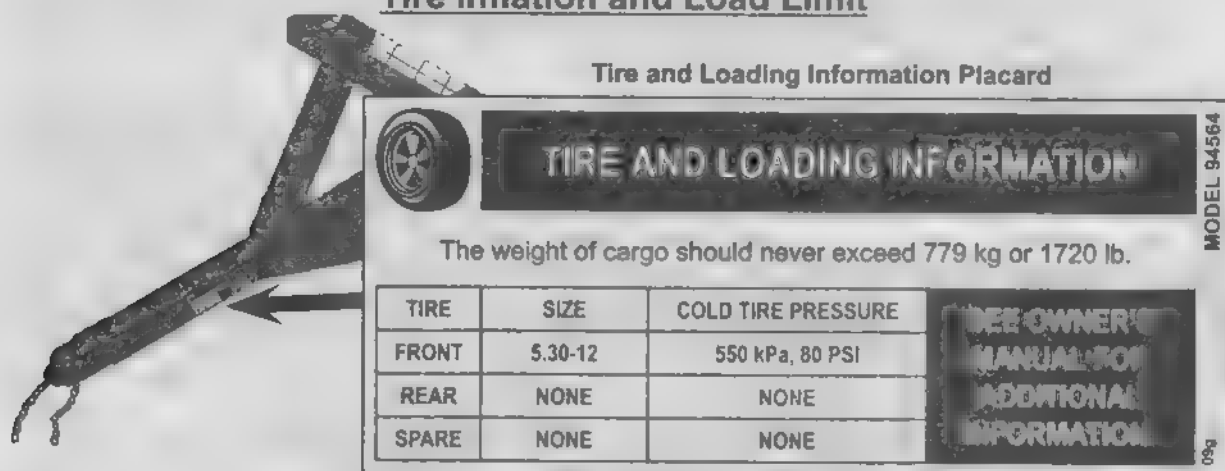
Code	MPH
F	50
G	56
J	62
K	68
L	75
M	81

Code	MPH
N	87
P	94
Q	100
R	106
S	112
T	118

Code	MPH
L	124
H	130
V	149
Z	149
W	168
Y	186

## Tire Inflation and Load Limit

### Tire and Loading Information Placard



### Tire and Loading Information Placard Location

The Tire and Loading Information Placard displays the cold tire inflation pressure and the load limit for this vehicle. See the Tire Care section starting on the following page for an explanation of tire pressure and see the Vehicle Load Limit section following that for an explanation of load limit.

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## **TIRE CARE**

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### **Checking Tire Pressure**

**Note:** Underinflated tires can decrease handling, stopping performance, traction, tire life, and load-carrying capability, in addition to causing other negative and hazardous effects, including tire failure. Overinflated tires are at greater risk of an impact break, where the tread and casing break when striking a hard edge, often opening a huge gash across the tread. Incorrect inflation pressure also increases tires wear rate. Therefore, it is important to keep tires inflated properly.

Check all tires' pressure at least monthly, due to the following factors:

- Most tires naturally lose air gradually.
- Tires can suddenly lose air if the tire strikes a pothole, curb, or other object.
- It is usually not possible to determine underinflation of radial tires by visual inspection.

This vehicle has 80 PSI recommended cold tire inflation pressure. The term "cold" in this manual does not refer to the temperature outside, but it refers to the fact that a tire that has not been driven for a period is cooler (and therefore has lower pressure) than a tire that has been driven on. Tires heat up while being driven on. To check (or fill to) a tire's cold inflation, the tire must have not been driven for more than a mile or two for at least three hours. If you check a tires pressure when it is not "cold", the pressure will appear higher than the actual cold tire inflation.

### **Steps for Maintaining Proper Tire Pressure**

1. Locate the recommended tire pressure on the vehicle's tire information placard, certification label, or in the owner's manual. This trailer has 80 PSI recommended cold tire inflation pressure.
2. Measure and record the tire pressure of all tires.
3. If the tire pressure is too high in any of the tires and the tires have not been driven for at least three hours, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure. If the vehicle have been driven within the past three hours and the tire pressure is too high on any tires, then recheck the pressure once the tires have been allowed to sit motionless for at least three hours.
4. If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.
5. At a service station, add the missing pounds of air pressure to each tire that is underinflated.
6. Check all the tires to make sure they have the same air pressure.

7. If the tires' pressure was not measured "cold", then the pressure should be rechecked with the tires cold as soon as possible.

### **Tire Size**

To maintain safety, only purchase new tires of the same size as the original tires. Look at the Tire and Loading Information Placard, the Specifications Chart in this manual, or the sidewall of the tire being replaced. If you have any doubt about selecting the correct size, consult a tire dealer.

### **Tire Tread**

The tire tread provides traction that prevents your vehicle from slipping, especially if the road is wet or icy. Tires are unsafe and should be replaced when the tread is worn down to 1/16". Measure tread depth using a tread depth indicator (not included).

### **Tire Rotation**

Every 5,000 miles the left and right tires should be switched. This will cause the tires to wear more evenly and last longer.

### **Tire Balance and Alignment**

The tires need to be balanced to prevent vibration when driving. This involves attaching small weights to the rim to offset small differences in rim and tire weight. The tires also need to be aligned properly. Alignment is the orientation of the tires to the road surface and their being parallel. This helps the tires to wear evenly, and provide better traction. Both tire balance and alignment require specialized equipment that is not provided with this vehicle.

### **Tire Repair**

To properly repair a punctured tire, the hole needs to be properly plugged and patched from the inside of the tire. Tread punctures can be repaired if they are not too large. Sidewall punctures should not be repaired, the tire needs to be replaced if the sidewall is damaged. Tires should be removed from the rim to be inspected before being plugged and patched. A qualified mechanic should remove the tire from the rim, perform the repair, and remount the tire.




## **VEHICLE LOAD LIMIT**

### **Steps for Determining Correct Load Limit**

1. Locate the statement "The weight of cargo should never exceed XXX kilograms or XXX pounds" on your vehicle's placard.
2. That figure equals the available amount of cargo and luggage load capacity.
3. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity.
4. If the trailer's load exceeds the cargo and luggage load capacity, then the trailer be unsafe resulting in hazardous effects, such as: Trailer's tires will not be able to maintain traction properly, and stopping distance will be increased significantly.

## INSPECTION, MAINTENANCE, AND CLEANING

1. The Chart on the next page serves as a basic guideline for scheduling your trailer maintenance. Maintenance may be different based on your local conditions, use of trailer, and frequency of trailer use.
2.  **CAUTION!** All maintenance, service, or repairs listed in this manual are only to be attempted by a qualified service technician.

MAINTENANCE OF TRAILER	
Coupler	Before each use ensure proper fit of coupler. Check for lubrication quarterly and before/after storage of trailer.
Wheels and Hubs	Check lug nuts before each use, and after first 50 miles of tightening. Add grease to bearings quarterly and after storage. Repack bearings annually and before storage.
Tires before/after	Check the pressure (80 PSI, MAX) before each use and before storage. Visually inspect tires before and after each use. Check tread life quarterly and before/after storage.
Electrical	Check tail lights before each use and after storage. Check brake lights before each use and after storage. Check electrical ground wiring before each use.

### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

# PARTS LISTS & ASSEMBLY DIAGRAM

## Trailer Parts List

Part	Description	Qty.
1FL	Front Left Side Rail	1
1FR	Front Right Side Rail	1
1RL	Rear Left Side Rail	1
1RR	Rear Right Side Rail	1
2A	Cross Member	1
2B	Cross Member	5
3L	Left Connecting Rail	1
3R	Right Connecting Rail	1
4	Angle Iron	2
5	T-Plate	1
6	Coupler Base	1
7	Coupler	1

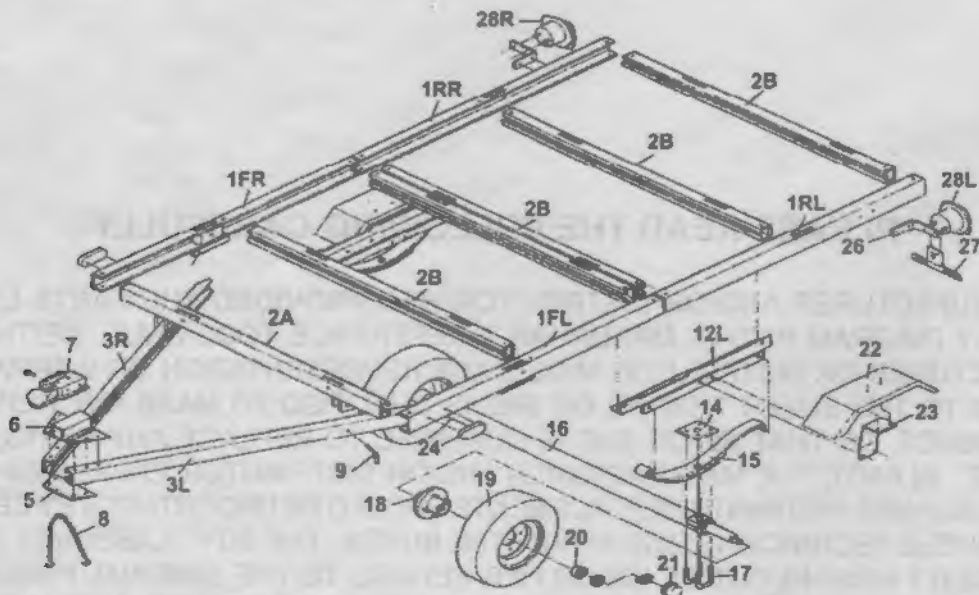
Part	Description	Qty.
8	Safety Chain	1
9	L-Latch	1
12L	Left Spring Hanger	1
12R	Right Spring Hanger	1
14	Spring Plate	2
15	Spring	2
16	Axle	1
17	U-Bolt	4
18	Hub	2
19	Tire/Wheel Assy.	2
20	Bearing	2
21	Dust Cap	2

Part	Description	Qty.
22	Fender	2
23	Fender Seat	2
24	Side Running Light	2
26	Tail Light Bracket	2
27	License Plate Bracket	1
28L	Left Tail Light	1
28R	Right Tail Light	1
29	Safety Pin	1
31	Grease Fitting	2
99	Grease Seal	2

## Hardware Parts List

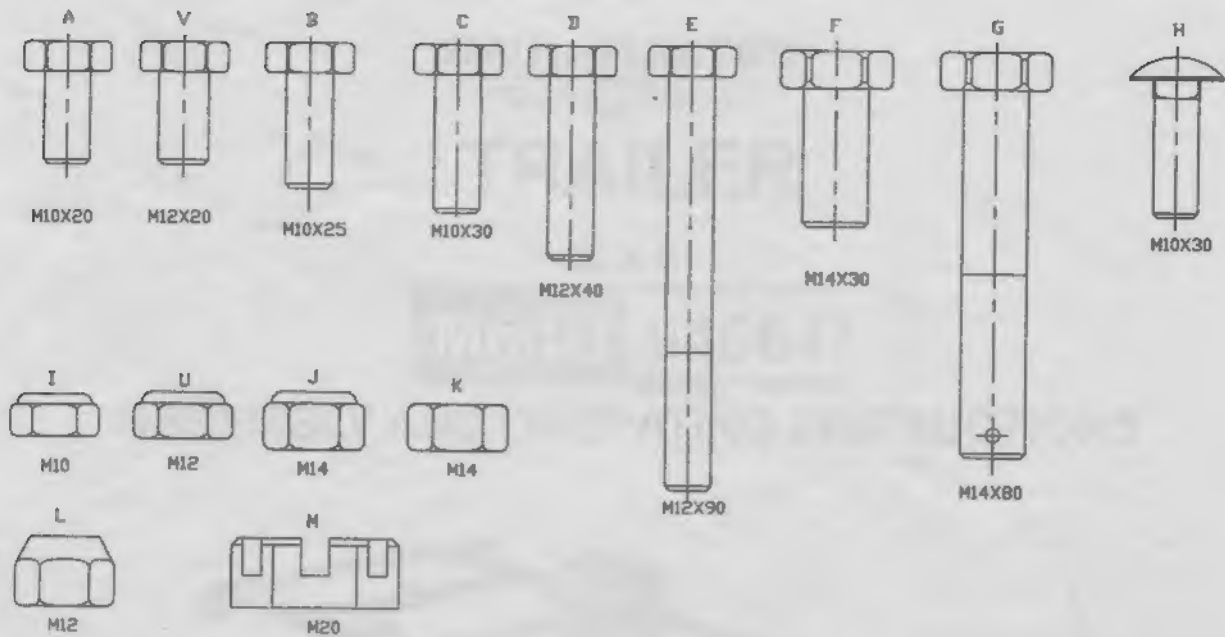
Part	Description	Qty.
A	M10 x 20 Bolt	38
B	M10 x 25 Bolt	12
C	M10 x 30 Bolt	2
D	M12 x 40 Bolt	1
E	M12 x 90 Bolt	2
F	M14 x 30 Bolt	2
G	M14 x 80 Bolt	4
H	M10 x 30 Carriage Bolt	4
I	M10 Nylon Nut	64
J	M14 Nylon Nut	2
K	M14 Hex Nut	4

Part	Description	Qty.
L	M12 Lug Nut	10
M	M20 Castle Nut	2
N	12 Flat Washer	1
O	20 Flat Washer	2
P	4mm Self Tapping Screw	5
Q	2mm R-Pin	1
R	3mm R-Pin	2
S	3mm Cotter Pin	4
T	4mm Cotter Pin	2
U	M12 Nylon Nut	4
V	M12 x 20 Bolt	1



**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

## HARDWARE SPECIFICATIONS



### LIMITED 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. **THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.**

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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